

IN THE ABSTRACT

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~~Digital transmission method of the error-correcting coding type~~

A digital transmission method ~~of the~~ with error correcting coding ~~type~~ comprises a coding procedure ~~before transmission~~ and a decoding procedure in order to ~~obtain a~~ correction of the correct transmission errors. The ~~said~~ coding procedure comprises a plurality of elementary coding steps associated operating in parallel or in series. The decoding procedure is iterative and comprises, for each iteration, a plurality of elementary decoding steps (50) which correspond to the ~~said~~ plurality of elementary coding steps. Each and which ~~each~~ elementary decoding step ~~generate~~ generates at least one ~~extrinsic~~ weighted output information item. ~~According to the invention A~~ characteristic quantity determination step (51) ~~calculates a characteristic quantity~~ is generated directly from a set of *weighted output* information items generated by ~~an~~ each elementary decoding step (50) for processing a decoding sequence. A comparison step (53) is adapted to compare the ~~said~~ characteristic quantity with a threshold quantity determined by a threshold quantity determination step (52). An interrupt step (54) interrupts the ~~said~~ iterative decoding procedure at ~~an~~ the elementary decoding step (50) ~~for which~~ when the ~~said~~ characteristic quantity ~~attains~~ reaches the ~~said~~ threshold quantity.

~~Advantageously, the said threshold quantity determination step (52) determines a threshold quantity so as to effect a compromise between the performance permitted by the said decoding procedure and the complexity of this decoding procedure. Likewise, the said threshold quantity determination step (52) can determine a threshold quantity as a function of a required mean transmission time or as a function of an acceptable mean energy consumption.~~

Fig 4